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CENTRAL INTELLIGENCE AGENCY
Directorate of Intelligence
14 December 1967

INTELLIGENCE MEMORANDUM

Impact on the Cambodian Economy
of Closing the Mekong River

Summary

The major direct effect on the Cambodian economy if the Mekong were closed to shipping to and from Phnom Penh would be a short-term petroleum shortage. This in turn would result in a cutback in electric power production and in the internal distribution of goods. Some short-term adjustments in the pattern and volume of foreign trade would also be necessary but they would not be significant. With foreign technical assistance, Cambodia could adapt its petroleum distribution system to the closing of the Mekong within two to three months. If Cambodia were required to cope with the petroleum problem without foreign

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assistance, the time required would be considerably longer and the economic disruption more severe. They would not, however, prevent the maintenance of essential activities such as food production and distribution.

The inability to move goods through the port of Phnom Penh would double the volume of traffic to be handled at Sihanoukville and exceed that port's current rated cargo handling capacity. However, the shortfall could be absorbed by the rapid expansion of Sihanoukville's facilities and by the use of alternative ports such as Kampot or Kep. With the exception of tank cars and barges needed to move petroleum, the rail and road systems are now adequate to handle other foreign trade cargoes (see the map).

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The Importance of the Mekong River to Cambodia

1. All but a negligible portion of Cambodia's foreign trade moves by water through Sihanoukville accessible from the Gulf of Siam, and Phnom Penh, which requires transiting the Mekong River. Relatively equal volumes of cargoes transit both ports, Sihanoukville handling somewhat the larger share of exports, and Phnom Penh a slightly heavier volume of imports (see Tables 1 and 2). Ships which sail up the Mekong River pass through South Vietnamese territory.

2. Under the terms of a tripartite agreement signed by Cambodia, Vietnam, and Laos in 1954, ships flying the flags of the contracting countries, and of the countries which recognize these countries diplomatically, are allowed freedom of navigation on the Mekong. Until October 1964, controls over international shipping proceeding through South Vietnam up the Mekong to Cambodia were minimal. A South Vietnamese pilot and customs official accompanied each ship, but there was no inspection of cargoes and cargo spaces. Under control regulations issued by the government of South Vietnam in October 1964 and January 1965, (a) Communist-flag ships and

Table 1

Cambodia: The Volume and Distribution of Imports, by Port
1965-66 and January-September 1967

Volume in Thousand Metric Tons					
	Phnom Penh		Sihanoukville		Total
	Volume	Percent	Volume	Percent	
1965	279.0	51.3	264.7	48.7	543.7
1966	297.5	51.8	277.1	48.2	574.6
1967 (January-September)	252.4	55.8	200.1	44.2	452.5

Table 2

Cambodia: The Volume and Distribution of Exports, by Port a/
1965-66 and January-August 1967

Volume in Thousand Metric Tons					
	Phnom Penh		Sihanoukville		Total
	Volume	Percent	Volume	Percent	
1965	313.1	39.0	489.5	61.0	802.6
1966	219.5	44.5	273.8	55.5	493.3
1967 (January-August)	144.6	42.8	193.1	57.2	337.7

a. The data in this table are unclassified.

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Table 3

Cambodia: The Distribution of Imports, by Commodity and Port
January - September 1967 ^{a/}

	Total	Petroleum	Coal	Cement	Foodstuffs	Military Supplies	Metals and Metal Products	Other
	Thousand Metric Tons							
Total	452.5	180.3	14.0	101.1	14.2	0.5	24.7	117.7
Phnom Penh b/	252.4	174.5		4.8	0.5		17.4	55.2
Sihanoukville	200.1	5.8	14.0	96.3	13.7	0.5	7.3	62.5
	Percent of Total							
Phnom Penh b/	55.8	96.8		4.7	3.5		70.4	46.9
Sihanoukville	44.2	3.2	100.0	95.3	96.5	100.0	29.6	53.1

a. The distribution pattern for January-September 1967 does not differ significantly from patterns for the same periods of 1965 and 1966.
b. Including cargo in transit for Laos and petroleum deliveries to Kompong Cham and Tonle Bet.

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ships and cargoes from Communist ports are prohibited from entering the Mekong, (b) South Vietnamese permission is required for the movement of weapons, ammunition, and commodities of military significance, and (c) inspection of all cargoes is authorized. Communist cargoes now use the port of Sihanoukville.

3. Additional restrictions were adopted in late 1966 because of the growing concern of South Vietnamese and allied military authorities that supplies were being off-loaded from Free World ships into Viet Cong sampans along the Mekong. Since the middle of November 1966, all Free World freighters transiting the Mekong River to Phnom Penh have been required to sail in convoys escorted by South Vietnamese gunboats. Four round-trip convoys a month operate between Cap-Saint Jacques and Tan Chau near the Cambodian border. South Vietnam permits a maximum convoy turnaround time of only 72 hours in Cambodia.

4. Except for temporary disruptions in November 1966 and October 1967, the additional restrictions have had little effect on the volume of shipping at Phnom Penh. Despite the convoy restriction, the volume of shipments to Phnom Penh was higher in the first three quarters of 1967 than in the first three quarters of 1966.

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5. Petroleum accounts for about seventy percent of the imports delivered to Phnom Penh, most of which are consumed in the heavily populated area surrounding the city (see Table 3). Approximately half of the petroleum is used by motor vehicles. Another third is consumed by thermal generators, the country's sole source of electric power, and the remainder goes to households, aircraft and the railroad system. Specific data on commodities exported via Phnom Penh are unavailable, but rice, rubber and corn -- Cambodia's principal exports -- probably account for most of the export cargoes.

Alternative Ports

6. During the first 9 months of 1967, the port of Sihanoukville accounted for about 400,000 metric tons of imports and exports, an average of 44,000 tons per month or about 1,500 tons per day. Currently, Sihanoukville is conservatively estimated to have a capacity of 67,000 tons per month or about 2,200 tons per day.*

** A port expansion program is under way, but progressing slowly. It was planned to expand the capacity of the port to one million tons per year by the end of 1967 from the current capacity of 800,000 tons, but this goal apparently will not be met.*

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7. During the first nine months of 1967 the total volume of imports and exports moved through Phnom Penh amounted to about 400,000 tons. If all of this traffic were shifted to Sihanoukville, the volume required to be moved through Sihanoukville would be double the current volume and would exceed rated port capacity by about 300 tons per day. However, except for petroleum imports, the capacity at Sihanoukville could be expanded quickly and accommodate the import and export traffic which normally moves through Phnom Penh. (Petroleum import problems are discussed in paragraph 12, below).

8. The port of Sihanoukville has an improved natural harbor with no defined outer limits. The main pier is "L" shaped for use by deep-draught ships and has a frontage of 935 feet. Small craft use the breakwater, and lighters use the rock-faced quay. Lightering operations are conducted from an anchorage area just north of the main pier. There is an unlimited anchorage for deep-draught vessels in an area northwest of Sihanoukville from which lightering operations can be conducted. Expansion of the capacity of the port

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in terms of fixed shoreside facilities is proceeding slowly. However, the capacity of the port can be expanded very quickly by using a ship's gear for unloading into lighters and by importing additional mobile cranes for unloading the lighters and barges.

9. In addition to the two main ports of Sihanoukville and Phnom Penh, there are four minor ports on the Gulf of Siam -- Kampot, Kep, Lem Dam, and Ream -- which offer at least some expansion possibilities. Kampot was connected with Phnom Penh by railroad in March 1967, and offers the greatest promise for supplementing the port of Sihanoukville in the event that the Mekong River were denied for shipping to and from Cambodia. There is no anchorage for ocean-going ships at Kampot, but there is limited anchorage for small ocean-type craft. Kep is cleared only by a secondary road, Ream by a road leading to the Friendship Highway, which connects Sihanoukville and Phnom Penh, and Lem Dam is located on an island.

Land Transport -- Sihanoukville-Phnom Penh

10. The railroad from Phnom Penh to Sihanoukville is not expected to be completed until

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January 1969, but at present two mixed passenger and freight trains travel each way per day between Phnom Penh and Kampot, which has a connecting road to Sihanoukville. The capacity of this section of the railroad is about 15 trains each way per day. Equipment on the Cambodian railroad is not well maintained and consists of about 24 steam locomotives, a few diesel locomotives, some 50 passenger cars, and about 480 freight cars. The number of petroleum tank cars is not known, but in March 1967 it was reported that an order had been placed for 40 units. Altogether, Cambodia has about 560 kilometers of railroads in the western half of the country.

11. Cambodia has some 5,000 kilometers of highways, of which almost half are bituminous surfaced. The major routes radiate from Phnom Penh and extend to most of the country. The routes to the south of Phnom Penh have the greatest capacity. Route 4, the Friendship Highway, is the major route between Sihanoukville and Phnom Penh. It has a capacity of about 8,700 tons each way per day and is the principal means of clearing the port of Sihanoukville. Route 3

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is an alternate road which also serves Kampot. It has a capacity of about 3,600 tons each way per day. There are about 8,300 motor trucks in the civilian sector and 2,700 in the military for a total of some 11,000 units.

Capability to Move Diverted Petroleum Imports

12. The chief logistic problem Cambodia would have, if the Mekong were denied, would be the unloading of petroleum in bulk. So far as can be determined, Sihanoukville has no permanent facilities for bulk operations. An average of about 700 tons of petroleum have been imported per day during the first three quarters of 1967, almost all of which was discharged at Phnom Penh (see Table 3). During the December 1966 - March 1967 period, when there were difficulties with convoys in the Mekong, repeated bulk POL unloading, at a maximum rate of 200 tons a day, took place at Sihanoukville, apparently directly into tank trucks. Sihanoukville could also receive petroleum in drums, but it would be costly and inefficient to import all requirements in drums.

13. Cambodia would need to devise other means to import petroleum. The three small tankers that have been employed in delivering petroleum to Phnom Penh could probably be accommodated at the

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anchorage at Kampot. A small petroleum terminal with necessary discharge facilities could be constructed at Kampot for transshipment of the petroleum into railroad tank cars. Another alternative would be to discharge the petroleum into tank barges at Sihanoukville for delivery to Kampot for transshipment into railroad tank cars. This is a technique currently used at Haiphong.

14. If the total petroleum imports amounting to about 700 tons per day are delivered by small tankers to Kampot for transshipment to the railroad, about 30 railroad tank cars will be sufficient to make deliveries to Phnom Penh and intermediate points. These cars could move in two trains each way per day and would be in addition to the two trains currently moving each way per day between these points. The capacity of the line is 15 trains each way per day. If tank barges are used to deliver petroleum to Kampot from Sihanoukville rather than tankers, about 25 barges with a capacity of 50 tons each will be required.

15. Although the inventory of tank cars and barges may be inadequate, additional equipment could be obtained from either Communist or Free World countries within two to three months. During this period regular trucks carrying

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55-gallon drums could be used to move some petroleum from Sihanoukville or Kampot to Phnom Penh. The average truck could deliver 2 tons every three days in this manner. This method would be costly, but minimum deliveries could be maintained in this way, and on the return trip some export cargo could be delivered to Sihanoukville.

Dry Cargo Imports and Exports

16. The dry cargo diverted from the Mekong would amount to 265 tons of imports and 600 tons of exports a day. About 600 motor trucks would be required to maintain these movements over the Friendship Highway between Sihanoukville and Phnom Penh. This number would represent about 7 percent of the inventory of trucks in the civilian sector and about 5 percent of the civilian and military trucks combined.

17. The total dry cargo tonnage to be moved through Sihanoukville -- present normal shipments through Sihanoukville plus diverted Phnom Penh shipments -- would be about 2,400 tons a day, consisting of about 1,400 tons of exports and 1,000 tons of imports. Movement of this volume of exports all the way from Phnom Penh to the

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port would require the use of about 1,400 trucks, or about 15 percent of the total truck inventory. Movement of this volume only between the present terminus of the rail line at Kampot and Sihanoukville would require one-third this number of trucks. On the return trip the trucks could carry the imports.

18. If the 1,400 tons of exports were moved to Kampot by rail, about four trains would be required. This number added to current traffic would make a total train movement of six. The capacity of the line is 15 trains each way per day. Some of the dry cargo could also be shifted to barges between Kampot and Sihanoukville.

Transport Connections with Thailand and Laos

19. Through rail traffic crossing the Thai-Cambodian border on the meter-gauge rail line through Peipat ceased in 1966 after the Cambodian rail line near the border was dynamited. Traffic on the two-lane road, which closely parallels the railroad and is the only main road connection between the two countries, is also limited, because of the poor relations between the two countries. International tourist traffic and a small volume

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of local trade continue to move on these roads. Until international relations between Thailand and Cambodia are improved, it is not likely that any significant amount of Cambodia's international trade would be moved on the Thai transport system.

20. Route 13 connecting the Cambodian and the Royal Laotian road network is a good quality road. Likewise the Mekong, as far as the rapids at the Lao border, has a fairly high capacity. But these routes could be used only to export a small volume of rice to Laos. No imports of any significance could be received from or through Laos. On the contrary, a small volume of Royal Laotian imports is now moved through Cambodia.

Assessment

21. The major effect on the Cambodian economy if the Mekong is closed will be a short-term petroleum shortage. Without rationing, Cambodia's supplies of principal petroleum products would probably be exhausted within a month. Continued normal consumption and a cessation of imports could produce shortages of some petroleum products within a week, but rationing could prolong availabilities. A shortage of fuel for thermal

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generators would have its major impact on the population of Phnom Penh and the provincial capitals which have electricity. Truck transport would also be affected by petroleum shortages. Shortages of other petroleum products would be of acute concern to a few, but would cause only minor inconvenience to most of the population.

22. The duration and seriousness of the petroleum shortage would depend on the speed and skill with which the Cambodians can marshal and reallocate resources and institute countermeasures. Foreign technical advice and the importation of equipment would be a prerequisite to the reestablishment of a substantial flow of petroleum in bulk. This assistance, however, would almost certainly be forthcoming from the oil companies with which Cambodia has had good relations for years. The Cambodians could also expect to receive assistance from the USSR or France. Until then, Cambodia would be dependent on petroleum imports through Sihanoukville at a rate well below their normal requirements.

23. There is ample capacity in the road and/or railroad systems to move the dry cargo trade that

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would have to be diverted from Phnom Penh. However, some additional mobile cranes would be needed for the unloading of lighters at Sihanoukville. Good management would be needed and hard decisions will have to be made to reallocate or import the motor trucks, locomotives and freight cars to operate over the routes.

24. Apart from petroleum availability, the Mekong closure would have but slight direct effect on the economy. The cost of some imports and exports probably would increase. The pattern and volume of foreign trade probably would not change after the initial adjustment period of a month or two. The Cambodian Government subsidized rice exports until recently, and may have been absorbing the higher freight costs on petroleum imports caused by the convoy system during the past year. The government monopoly of foreign trade permits Cambodian officials to continue the past export pattern. The new transportation and port equipment Cambodia would have to import because of the closure could be financed from gold and foreign currency reserves, but Cambodia probably would seek foreign loans. The closure would add only a small amount to the perennial budget deficit.

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25. Without foreign technical assistance the readjustment would take longer and the economic disruptions would be more severe. They would not, however, prevent the maintenance of essential activities such as food production and distribution. The denial of the Mekong, however, would probably prompt Cambodia to accelerate port and transport improvements in Sihanoukville that have been implemented at a leisurely pace. Assuming that Cambodia receives modest amounts of foreign technical assistance and aid, it is expected that Cambodia could successfully adjust to the closing of the Mekong within two to three months.

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